DO NOT ENTER: /U.J./

Docket No.: 043395-0377973
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Valery M. DUBIN et al.	Conf. No. :	8631
Application No.:	10/814,982	Group Art Unit:	1641
Filing Date:	March 30, 2004	Examiner:	Unsu Jung
Title:	SENSOR ARRAY INTEGRATED CIRCUITS		

AMENDMENT AFTER FINAL ACTION UNDER 37 CFR 1.116

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INTRODUCTORY COMMENTS

In response to the Office Action, dated May 20, 2009, finally rejecting claims 1-4, 7-16, 19-21 and 54-59 please amend the above-identified U.S. patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 8 of this paper.

AMENDMENTS TO THE CLAIMS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Listing of Claims

1. (Currently amended) An apparatus, comprising:

a microfluidic trench to contain a target molecule, an array addressed device including a plurality of addressable cells, each of the plurality of addressable cells including at least two electrodes~~, the electrodes having structures and/or charge distributions similar to the target molecule~~ and a self-assembled interlayer configured to modulate a coverage on at least one of the electrodes;

an electrochemical detector;

and a spectroscope optically coupled to the array addressed device via a waveguide total internal reflection prism, wherein the waveguide total internal reflection prism is coupled to the microfluidic trench, wherein the array addressed device is configured to detect bonding and/or lack-of-bonding of the target molecule to the array addressed device.

2. (Original) The apparatus of claim 1, wherein the spectroscope includes an infrared spectroscope.